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ANNALS
OF
KENTUCKY NATURAL HISTORY

VOL. 1, ART. 3
OCTOBER 28, 1948

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ALS OF KENTUCKY NATURAL HISTORY

RT. 3, PP. 23-26 PL. I.

OCTOBER 28, 1948

Published by the Kentucky Society of Natural History, Inc.

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Louisville, Kentucky.

On the Occurrence of a New Species of *Cyrtodonta* from the Liberty Formation of Oldham County, Ky.

By James Conkin

On March 30, 1947, the writer, accompanied by Mr. Robert Brownfield of St. Louis University, found a unique pelecypod of the genus *Cyrtodonta*.

After failing to find the clam described in the literature, the specimen was sent to the U. S. National Museum in Washington, D. C. Dr. G. Arthur Cooper, Curator of Invertebrate Paleontology and Paleobotany, expressed the belief that the pelecypod under discussion is probably a new species of *Cyrtodonta*.

For this new form the writer proposes the name

Cyrtodonta beckneri, sp. nov.

Holotype:—Only specimen J. C. 320 in collection of author.

Description:—Shell is large having length of 58 mm., a height of 62 mm., and a maximum thickness of 44 mm. Most of the shell material is preserved; however, some of the shell is broken away antero-ventrally on the right valve and completely so ventrally on the left valve, presenting a limy mud filling.

The shell is equivalve and strongly ventricose. Surface marked with prominent concentric lines of growth ventrally which extend anteriorly and posteriorly; these lines are especially pronounced at the anterior end of the shell. The beak is well preserved, incurved and tumid, and is situated in the anterior third of the shell. Hinge line

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seemingly short and straight, about 25 mm. long. The dorsal area is not divided into a lunule or escutcheon. No radiating striae are present; nodes, ridges and spines are absent. Shell more inflated anteriorly. No internal features of anatomy are discernable, because of the remarkable degree of preservation.

This species is named for Col. Lucien Beckner, Director of Louisville's Natural History Museum, who first directed the writer to the study of fossil life and to the subsequent enjoyment thereof.

Locality:—Kentucky, Oldham County, at Sleepy Hollow near Worthington.

Horizon:—In the upper ten feet of the Liberty, about 20 feet below the *Tetradium approximatum* zone of the Saulda. This species of *Cyrtodonta* occurred with specimens of *Protarea richmondensis*, *Strophomena planumbona*, *Rafinesquina alternata*, *Bellerophon* sp., *Byssonychia* sp., *Ceraurus* sp., *Streptelasma rusticum*, and *Rhynchotrema capax*.

Remarks:—This species seems to have its closest affinities to *Cyrtodonta grandis*, occurring in the Trenton of Kentucky and a variety *Cyrtodonta grandis luculenta* of the *Maquoketa Formation* of Iowa. The measurements as to length and height are nearly the same. The distinction between the present species and *Cyrtodonta grandis* are that *Cyrtodonta beckneri* has (1) more anteriorly situated beak, (2) a more rounded posterior margin, (3) more abrupt and straighter anterior margin, and (4) greater ventricosity of the valves. The present configuration of *Cyrtodonta beckneri* can not be considered a distortion as a result of pressure, because the lines of growth are undisturbed concentrically.



PL. I Left lateral aspect (left) and anterior aspect (right) of *Cyrtodonta beckneri* (J. C. 320).

The only other species of *Cyrtodonta* described from the Richmond of Kentucky, up to at least 1915, is the small *Cypricardites halli*¹. That species was found in Oldham County by Nettleroth, and is described in his book, *Kentucky Fossil Shells*. Nettleroth states that there were two specimens of *Cypricardites halli* existant and that they were found by him in the Hudson River Shales², of Oldham County. *Cyrtodonta* is common in the Ordovician of Kentucky, occurring in the High Bridge and Trenton formations.

LITERATURE CITED

NETTLEROTH, HENRY

1889 *Kentucky Fossil Shells*. Frankfort, Kentucky Geol. Surv., 245 pp., 36 pls.

¹ *Cypricardites* synonym for *Cyrtodonta*.

² Roughly equivalent to Cincinnati group.

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